

NORTHROP EXHIBIT O

M. Allen Day

6 Cells of Mito Ching

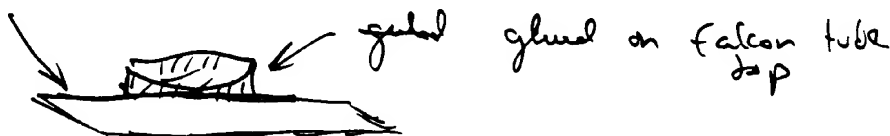
PCP Runs on miles heaters 35 ³² heaters
Volume ~ 25 μ l Volume walls

1) Standard runs 20, 20, 30, 40 μ l

20, 30, 40 μ l of graphite pencil tips
~ 60 μ l oil in each

Wedge temp:
max = 45°C
min = 42°C

2) Device: ~ 60 μ l run mixture
~ small excess oil



Cycling w/ 7.7 volts } 1.5 W
200 mA }

oil warm? }
up } upline ~ 47 sec / 29 sec = 21st cycle
down = 23 sec / 15 sec = " "

- Thermocouple touching membrane center
- Type (?)
- Diameter .005" = 100 μ m
tip ~ 200 μ m

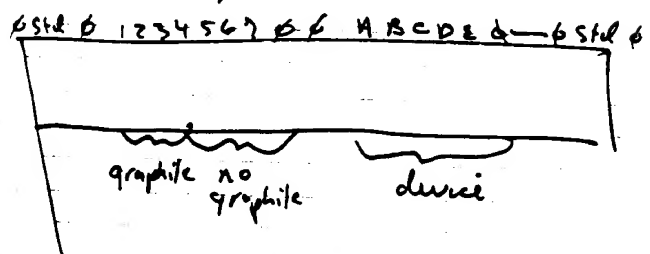
poly = ~~spiral~~ thickness 0.6 μ m
diam: 0.3 μ m

Cont

M. All / 10/7

- 30 cycles completed on device
- 25 cycles on standards

Gal:



1	20	ml	of graphite	} 25 cycles
2	30			
3	40			
4	20	ml	of graphite	
5	20			
6	20			
7	40			

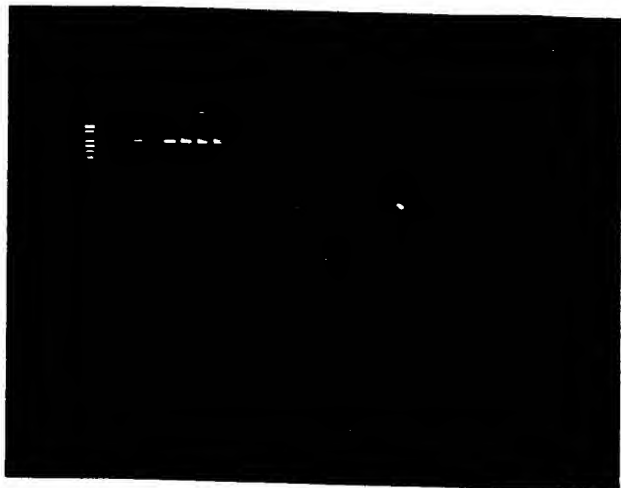
A - E = device = 30 cycles

34



M. Allen

35



no data

Results:

- Graphite did not have a significant effect (lanes 1-3)
- Primer Dimer formed in wells (lanes 9-11) due probably to not reaching high enough T for lambda to denature
- note this system has 2-bp overlap which is least toward primer-dimer formation
- evidence of steep T-gradient
- Try higher T (40°) longer 1 min.